

# FYE March 2018 Second Quarter Financial Briefing

## November 28, 2017 NAGASE & CO., LTD.

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## **▲NAGASE**

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# FYE March 2018 Second Quarter Results

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#### Consolidated Statements of Income

NAGASE achieved record highs for sales and all profit for the cumulative consolidated second quarter

■ Net sales: Higher, mainly due to strong sales in all segments and the lower valuation of the yen

■ Operating income: Higher, mainly due to operating profit growth and lower amortization of retirement

benefit accounting a	benefit accounting actuarial differences (100 millions of yen)						
	16/09	17/09	Change	Vs. PY	Orig. Forecast (full year)		
Net sales	3,508	3,875	+366	110%	7,320		
Gross profit	446	502	+55	112%	950		
<gp ratio=""></gp>	12.7%	13.0%	+0.2%	_	13.0%		
SG&A expenses	374	376	+1	100%	759		
Operating income	72	126	+53	174%	191		
Ordinary income	74	138	+63	184%	209		
Profit attributable to owners of the parent	46	87	+40	187%	125		
US\$ Exchange rate (period average)	@105.3	@111.0	@5.8dev	aluation	@108		
RMB Exchange rate (period average)	@15.9	@16.4	@0.5dev	aluation	@15.6		

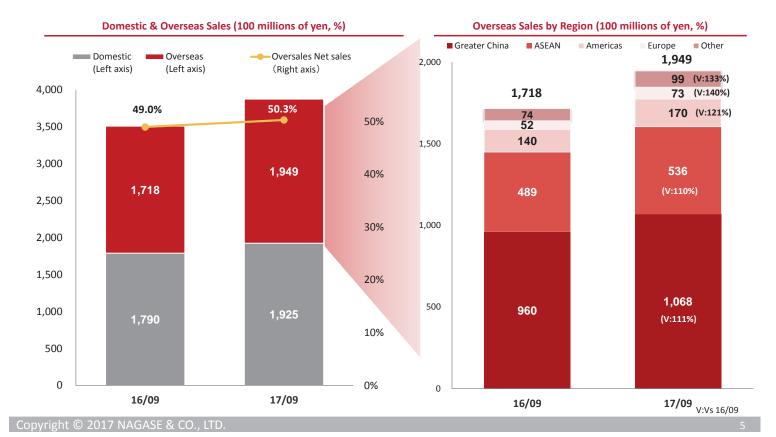
(Foreign exchange rate impact on 17/09 net sales and operating income results)

Net sales: +\(\pm\) billion (approx.)

Operating income: +\(\pm\)280 million (approx.)

(Per-yen exchange rate impact on net sales and operating income)
Impact of US\$ /yen Impact of RMB/yen
Net sales \$1.5 billion (approx.) \$7.4 billion (approx.)
Operating income \$20 million (approx.) \$250 million (approx.)

#### ■ Higher sales in Japan and every region overseas (overseas ratio of total sales 50.3%)



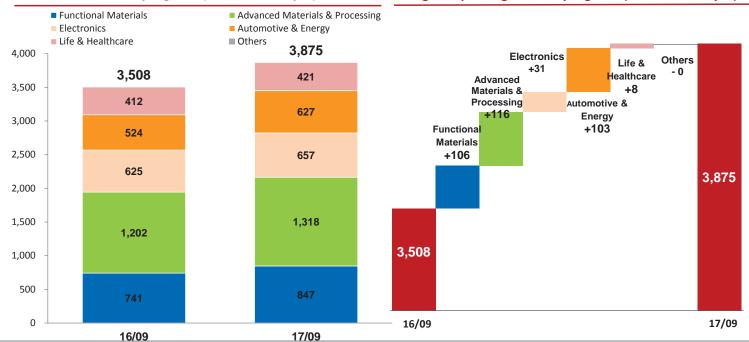
## Net Sales: Two-Year Comparison (by Segment)

#### **ANAGASE**

- Functional Materials: Higher sales, mainly due to improved sales of coating raw materials and urethane materials associated with higher production of automobiles, improved sales of fluorochemicals for use in semiconductors, and the impact of our acquisition of Fitz Chem Corporation (U.S. specialty chemicals distributor) and the addition of the company to our consolidated results
- Advanced Materials & Processing: Higher sales, mainly due to an increase of new business and improved sales of plastics in Japan and overseas
- Automotive & Energy: Higher sales, mainly due to increased sales of engineering plastics and car-electronics related products

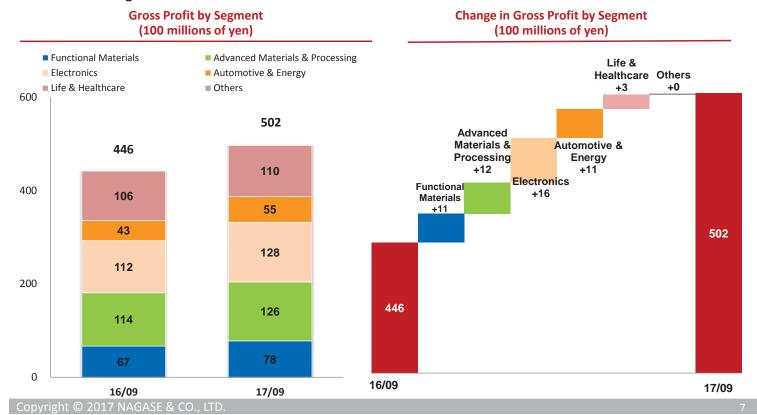
#### Net Sales by Segment (100 millions of yen)

#### Change in Operating Income by Segment (100 millions of yen)



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■ Improved profit ratio (0.2% improvement), mainly due to increase in high-margin businesses in our Electronics Segment and other businesses

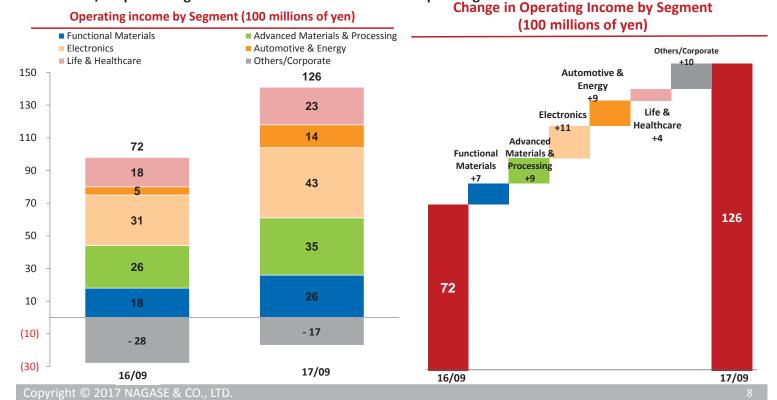


## Operating income: Two-Year Comparison (by Segment)

**NAGASE** 

■ In addition to higher sales among all segments, growth of manufacturing subsidiaries in Electronics, Advanced Materials & Processing, and other segments also had a positive impact.

■ In addition to the preceding, lower amortization of retirement benefit accounting actuarial differences for the Others/Corporate segment resulted in overall increase in operating income of ¥5.3 billion.



## Earnings at Major Consolidated Subsidiaries

#### **▲ NAGASE**

- NAGASE & Co. recorded higher profits on a non-consolidated basis, mainly due to increased sales and a decrease in amortization of retirement benefit accounting actuarial differences
- Nagase Plastics Co., Ltd. recorded higher sales and profits, mainly due to the acquisition of new business and increased sales of super engineering plastics to the electronics industry

(100 millions of yen)

	Company Name	Net Sales	Vs. PY	Operating Income (Note 2)	Vs. PY
Parent Company	NAGASE & CO., LTD.	2,192	106%	24	-%
uring ies	Hayashibara Co., Ltd.	121	102%	26	107%
Manufacturing Companies	Nagase ChemteX Corporation	129	101%	14	90%
Man	Total for manufacturing (Note 1)	513	111%	55	121%
les s	Nagase Plastics Co., Ltd.	173	113%	4	133%
ic Sa anie	Nishinihon Nagase Co., Ltd.	38	104%	1	67%
Domestic Sales Companies	Nagase Chemical Co., Ltd.	91	118%	1	105%
Do	Total for domestic sales (Note 1)	446	111%	12	137%
Sales	Nagase (Thailand) Co., Ltd.	183	117%	5	141%
	Shanghai Hua Chang Trading Co., Ltd.	196	113%	5	99%
Overseas Sal Companies	Shanghai Nagase Trading Co., Ltd.	210	128%	4	189%
0	Total for overseas sales (Note 1)	1,845	114%	48	144%

<sup>\*</sup>Note1: Totals for each category are simply the sums of each company. These sums do not equal consolidated figures.

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## State of Two Major Manufacturing Subsidiaries

#### **NAGASE**

- Hayashibara: Higher sales and profits, despite decrease in AA2G™ sales, as the company recorded increased sales of TREHA™ in Europe. Newly introduced products made from high-function materials, including Hayashibara Hesperidin S and Fibryxa™, also had a positive impact.
- Nagase ChemteX: Higher sales, despite sluggishness in certain businesses, as the company recorded strong sales in its photolithography materials business. Operating income was slightly lower, mainly due to worsening product mix.

Hayashibara Co., Ltd.

#### **Nagase ChemteX Corporation**

(100 millions of yen)

	FYE09/16	FYE09/17	Change	Vs. PY		FYE09/16	FYE09/17	Change	Vs. PY
Net Sales	118	121	+2	102%	Net Sales	127	129	+1	101%
Operating Income	24	26	+1	107%	Operating Income	16	14	- 1	90%

- Formulated Epoxy Resins Business recorded slightly lower sales. While sales were strong to the heavy electrical and light electrical industries, epoxy resin used for sealing electronic components embedded in smartphones entered an inventory adjustment period.
  - Photolithography Materials Business recorded higher sales, mainly due to new contracts, with associated market share gains, and improved customer capacity utilization
  - Performance Chemicals Business recorded lower sales, mainly due to weak sales of conductive materials and other products for the LCD industry
  - Bio Chemicals Business recorded level sales, mainly due to delays in introducing new products

(100 millions of yen)

	FYE09/16	FYE09/17	Change	Vs. PY
Net Sales	118	121	+2	102%
Operating Income	24	26	+1	107%

- Higher sales of TREHA™ due to improved sales in Europe and other overseas locations
- Lower sales of AA2G™ due to lower performance overseas although the sales increases to major customers achieved in Japan in response to the capture of inbound tourist demand, etc.
- Higher sales, supported by the introduction to the food industry of products made from high-function materials, including Hayashibara Hesperidin S and Fibryxa™
- Increased sales of pullulan for use in hard capsules and mouthrefreshing film for medical and health food uses

<sup>\*</sup>Note 2: Operating income does not reflect amortization of goodwill and depreciation of technology-based assets.

## **Consolidated Balance Sheets**



- Assets: Increase of ¥48.6 billion, mainly due to increases in accounts receivable and inventories, as well as rising investments in securities due to gains in fair market prices
- Net assets: Increase of ¥13.9 billion, mainly due to profit attributable to owners of the parent of ¥8.7 billion and increase in net unrealized holding gain on securities
- Shareholders' Equity Ratio down 2.2 points to 52.5%

Liabilities and Net Assets (100 millions of yen)

3,212 398 2,068 631 114 2,095 676	3,577 442 2,315 708 110 2,217	+43 +247 +77 -3	Total current liabilities  Notes and accounts payable  Short-term loans and Current portion of bonds  Other  Total long-term liabilities  Long-term loans and Bonds	1,664 1,020 416 227 690	1,912 1,195 473 244 <b>790</b>	+247 +174 +56 +16 +99
2,068 631 114 <b>2,095</b>	2,315 708 110 <b>2,217</b>	+247 +77 -3	Short-term loans and Current portion of bonds Other  Total long-term liabilities	416 227 <b>690</b>	473 244	+56 +16
631 114 <b>2,095</b>	708 110 <b>2,217</b>	+77 - 3	Other  Total long-term liabilities	227 <b>690</b>	244	+16
114 <b>2,095</b>	110 <b>2,217</b>	- 3	Total long-term liabilities	690		
2,095	2,217				790	+99
		+121	Long torm loans and Ronds			
676			Loug-rellii iodiis diiu dollus	400	464	+63
	684	+8	Net defined benefit liability	146	145	- 1
407	434	+27	Other (Deferred tax liabilities, etc.)	143	180	+36
1,011	1,098	+86	Total liabilities	2,355	2,702	+347
945	1,034	+89	Total net assets	2,951	3,091	+139
66	63	- 3	Shareholders' equity	2,396	2,458	+61
			Accumulated other comprehensive income	505	582	+76
			Net unrealized holding gain on securities	476	538	+61
			Translation adjustment	31	45	+14
			Other	- 2	- 1	+1
			Non-controlling interests	49	51	+1
5,307	5,794	+486	Total liabilities and net assets	5,307	5,794	+486
	1,011 945 66	1,011 1,098 945 1,034 66 63 5,307 5,794	1,011 1,098 +86 945 1,034 +89 66 63 -3  5,307 5,794 +486	1,011 1,098 +86  945 1,034 +89  66 63 -3  Shareholders' equity  Accumulated other comprehensive income  Net unrealized holding gain on securities  Translation adjustment  Other  Non-controlling interests  5,307 5,794 +486  Total liabilities  Total net assets  Total net assets  Total net assets  Total liabilities and net assets	1,011	1,011 1,098 +86

## **Consolidated Cash Flows**

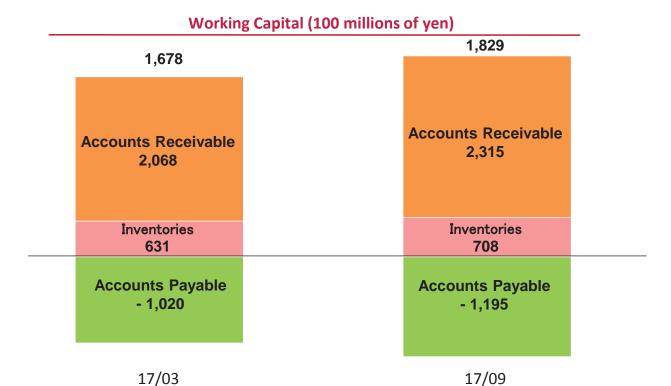


■ Cash and cash equivalents up ¥4.0 billion, cash flows from operating activities of ¥6.5 billion (¥13.0 billion in profit before income taxes), from investing activities of ¥10.2 billion (¥6.0 billion in purchase of shares of subsidiaries resulting in a change in scope of consolidation), from financing activities of ¥7.3 billion (increase of ¥13.2 billion in net borrowings, decrease of ¥10.0 billion in redemption of bonds), and the impact of translation differences

Cash Flows (100 millions of yen)

	17/09	Main breakdown	16/09
Net cash provided by (used in) operating activities	65	Profit before income taxes +130 Depreciation and amortization/amortization of goodwill+54 Working capital - 117 Income tax paid - 25	47
Net cash provided by (used in) investing activities	-102	Purchases of property, plant and equipment - 34 Purchases of intangible fixed assets - 1 Purchases of investment in securities -3 Purchase of shares of subsidiaries resulting in change in scope of consolidation - 60	- 52
Net cash provided by (used in) financing activities	73	Net increase in short-term loans payable +90 Net increase in commercial papers +70 Long-term loans(net payment/proceeds) +41 Redemption of bonds - 100 Cash dividends paid – 21	- 23
Effects of exchange rate changes on cash and cash equivalents	4		- 20
Net increase (decrease) in cash and cash equivalents	40		- 48
Cash and cash equivalents at beginning of the year	397	Japan 254, Greater China 70, ASEAN 35, Europe18, Americas 5, Other 13	429
Cash and cash equivalents, at end of the period	438	Japan 262 ,Greater China 77, ASEAN 44 , Europe23 , Americas 11, Other 13	380

■ Increase of ¥15 billion in working capital, mainly due to the impact of sales growth



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## FYE March 2018 Earnings Projections

## FYE March 2018 Earnings Projections



#### Forecast calls for record high sales and profits

- Net sales: Higher, mainly due to overall continued strength, despite slowing expected in some businesses
- Operating income: Higher, mainly due to higher sales and an expectation of ¥300 million in amortization of retirement benefit accounting actuarial differences (vs. income statement impact of +2.8 billion in the prior year).

	17/03		18/03	(200	minions or yen
	Actual (A)	Previous Full Year Forecast (B)	Revised Full Year Forecast (C)	Change (C-A)	Vs. PY (C/A)
Net sales	7,223	7,320	7,710	+486	107%
Gross profit	915	950	1,000	+85	109%
<gp ratio=""></gp>	12.7%	13.0%	13.0%	+0.3 %	_
SG&A expenses	764	759	765	+1	100%
Operating income	150	191	235	+84	156%
Ordinary income	163	209	255	+91	156%
Profit attributable to owners of the parent	103	125	160	+56	155%
US\$ Exchange rate (period average)	@108.4	@108.0	@111.0	@2.7 devaluation	_
RMB Exchange rate (period average)	@16.1	@15.6	@16.4	@0.3 devaluation	

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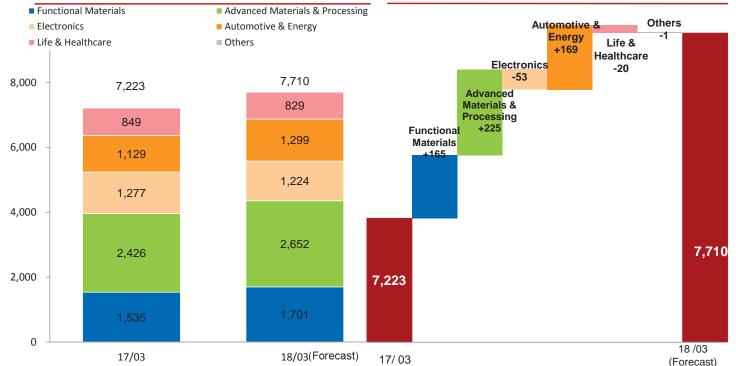
## Net Sales Forecast (by Segment)



- Advanced Materials & Processing: Higher sales, mainly due to strong performance in plastics for the office equipment, game deice, and electronics industries, as we expand our business by working with new suppliers overseas and capture new business in Japan.
- Automotive & Energy: Higher sales, mainly due to increased sales of engineering plastics through captured demand associated with the electrification/electronification of automobiles, as well as strong sales of car electronics-related products

#### Net Sales by Segment (100 millions of yen)

#### Change in Net Sales by Segment (100 millions of yen)



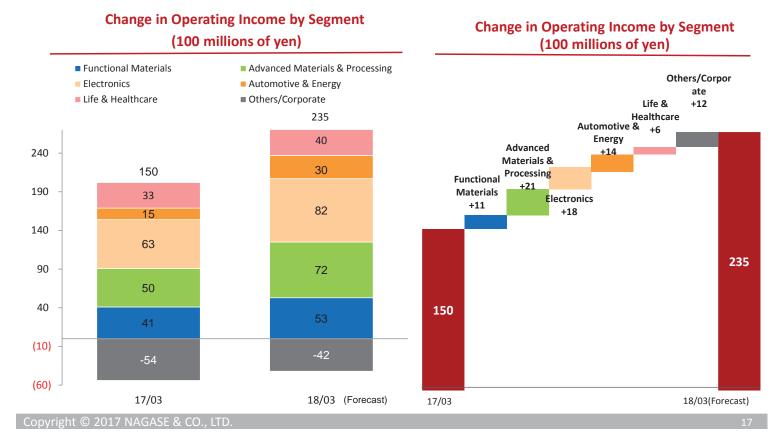
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## Operating Income Forecast (by Segment)



■ Higher profit, mainly due to increased sales and an expected ¥300 million in amortization of retirement benefit accounting actuarial differences (vs. income statement impact of ¥2.8 billion in the prior year).

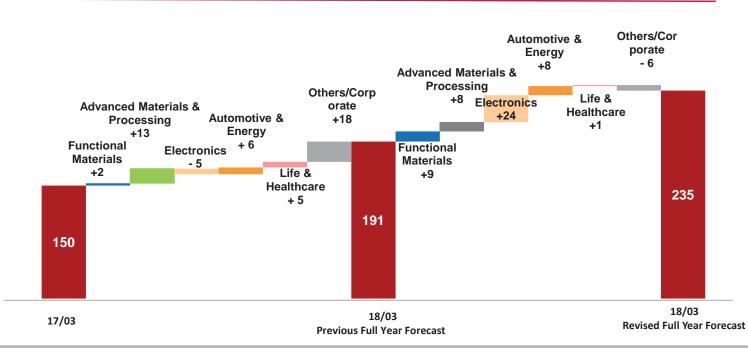


## Change in Operating Income (PY Actual vs. Initial Forecast vs. Revised Forecast)



We expect higher profits than initially forecast due a weak yen and strong demand in the electronics and automotive industries. Further, we intend to create new businesses in our trading business under our ACE-2020 mid-term management plan, while restructuring or withdrawing from unprofitable businesses to generate higher manufacturing business profits.

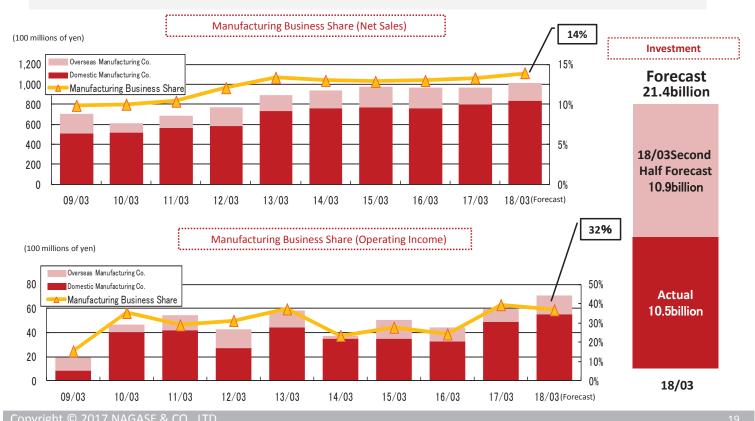
#### Change in Operating Income by Segment (100 millions of yen)



## **Investment Results and Manufacturing Business Share**



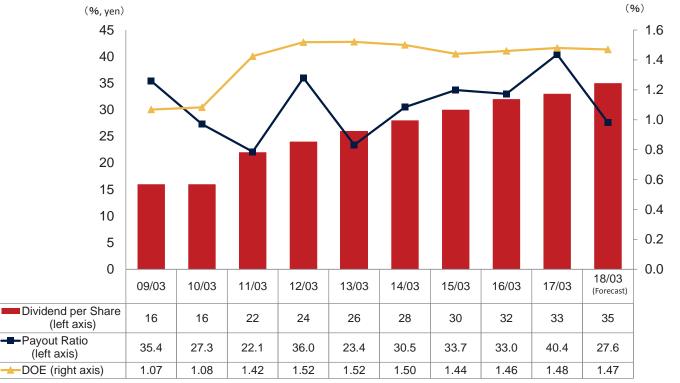
Investments and financing to bolster manufacturing function, R&D function, technical/information-related capacity, and global networks will create proprietary/competitive advantages; improve business quality and corporate value.



Dividends

**♠ NAGASE** 

- Projected eighth consecutive period of dividend increases
- Current period: Projected annual dividend of ¥35 per share (¥2 increase YoY), representing a ¥17 interim dividend and an ¥18 year-end dividend



<sup>\*18/03</sup> year-end dividend to be submitted for approval to general meeting of shareholders scheduled for June 2018



## Progress of Mid-Term Management Plan ACE-2020

Accountability / Commitment / Efficiency

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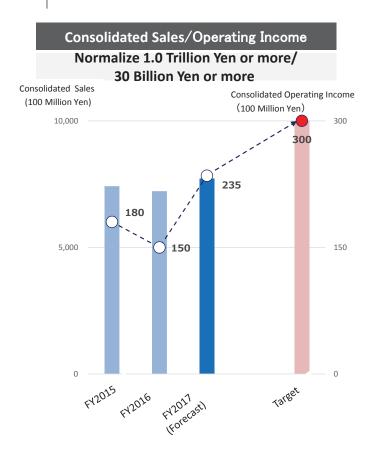
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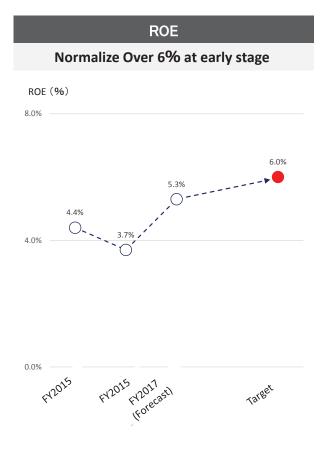
## Progress of Mid-Term Management Plan ACE-2020

**ANAGASE** 

- Allocate management resources to focus areas and regions via asset replacement
- Implement measures toward mindset reform

#### **Expand and Strengthen Revenue Base Relationship with KPIs** Focus Area Global Manufacturing Established MIANYANG CHENGHONG ELECTRONIC CHEMICALS CO., LTD Steady supply of chemicals to the Chinese electronics market **Acquired Fitz Chem Corporation** Expanded channels into the specialty chemicals markets in the Americas Approved establishment of heat-resistant PI film manufacturing and sales company with Toyobo Co., Ltd. Building a stronger flexible display panel business Acquired DAITAI KAKO CO., LTD. Entry into the downstream coatings market, expand R&D functions **Opened Bases of Operations in Lyon and Izmir Expand market in Europe and Middle East regions Reform Corporate Culture** Launched Nagase Business Expert Co., Ltd. → Pursue efficiencies Implement new HR system (FY2018) → HR training





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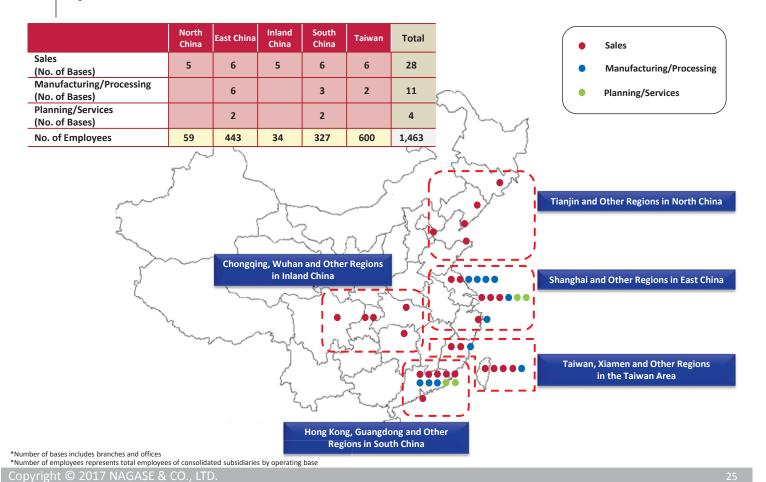


## **NAGASE Group Business in Greater China**

Executive Officer
Greater China CEO
Katsuhisa Yamaguchi

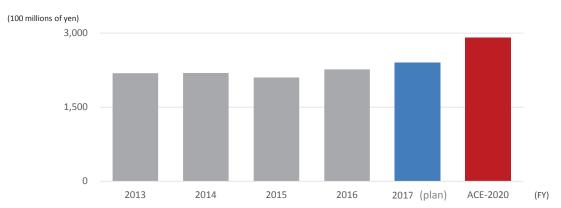
## **Operation Network**

#### **ANAGASE**



## Mid-Term Management Plan ACE-2020 Sales Targets

#### **ANAGASE**





<sup>\*</sup>Net sales are simple sums (by location); accordingly, these figures differ from by-region sales figures published in our financial results.

<sup>\*</sup>For ease of comparison, we have used the same foreign exchange rate for all fiscal year figures.

## Achieving Our ACE-2020 Mid-Term Management Plan



Business: Achieve the **ACE-2020** KPI *G6000* by delving deeper into four focus areas (stronger manufacturing/processing functions, cooperation with local partners) and priority policies (China-originated business tailored to local regional characteristics) Management Platform: Management Pursue localization, while promoting a platform capable of supporting HQ management functions

Reform of Corporate Culture: Expand diversity by promoting national staff to management and hiring external employees

Build a flexible and adaptive compensation system

#### Focus Area

#### **Automotive**

\*Priority Development Fields:

Develop non-Japanese OEM customers, car electronics, EV

Semiconductors

\*Priority Development Fields:

Taiwan, continental China, wafer substrates, circuit formation, rewiring, packaging

**Displays** 

\*Priority Development Fields:

Flexible displays (OLED), LCD, car multimedia

Environment and Energy,
Life & Healthcare

\*Priority Development Fields:

Environment and Energy: PV, VOC response (measure, recover, concentrate, combust, aqueous printing ink), soil modification

Life & Healthcare: Food additives and food materials from Hayashibara products

\*G6000: Key Performance Indicator under the ACE-2020 mid-term management plan (overseas group company net sales of ¥600 billion)

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## Action Plans for Achieving *ACE-2020* - Focus Area: Automotive -

■ High-function materials, precision plastic components for growing new energy vehicles market (XEV)

#### Existing Materials Business

Polypropylene Engineering plastics

Super engineering plastics

#### **General Components Business**

Decorative materials
Plastic components

#### Car Electronics Business

Inverter components
Heat dissipation materials
Epoxy resin
Other high-function materials

#### **Existing Markets**

- Interior/
- exterior Electronic
- components
- Lighting components

#### New Energy Vehicles Market

- Power system
- Lib components
- Display components

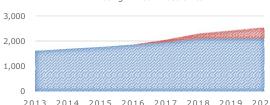
Chinese EU/Americas Japanese

Japanese

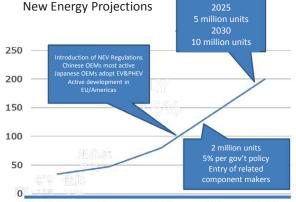
## Resins Business: Engineering plastics, super engineering plastics Increasing sales -- +28% annual average growth

- High-Function Materials: Heat dissipation materials, insulating materials, specialty adhesives, etc. -- Nagase ChemteX Corporation
- New Energy Vehicles: Compliance with Chinese environmental regulations -- More experience in Japan
- Production Platform: Work with local Chinese partners -- Group corporate technologies

## NAGASE AUTOMOTIVE BUSINESS IN CHINA Existing Car Electronics



2013 2014 2015 2016 2017 2018 2019 2020 (Forecast) (Forecast) (Forecast) (Forecast)



2015 2016 2018(Forecast) 2020(Forecast) 2025(Forecast) 2025(Foreca

#### **ANAGASE**

#### Strengthen group development and production functions ahead of MIC2025



**PacTech** 

#### **Photolithography Materials Business**

- Wuxi Chenghong Electronic Chemicals Co., Ltd.: Stable production of photolithography materials
- Steady start-up of MIANYANG CHENGHONG ELECTRONIC CHEMICALS CO., LTD.

(Both companies mainly produce stripping agents for LCDs)



Shanghai Demo Center



- Use Demo Centers (Taiwan, Shanghai)
- Work with SiChip to expand nonelectrolytic metal plating business



Signing ceremony between Pac Tech and SiChip





Nagase ChemteX (Wuxi)

#### **Formulated Epoxy Resins Business**

- Strengthen R&D functions
- Expand sales of proven liquid sealants for semiconductors

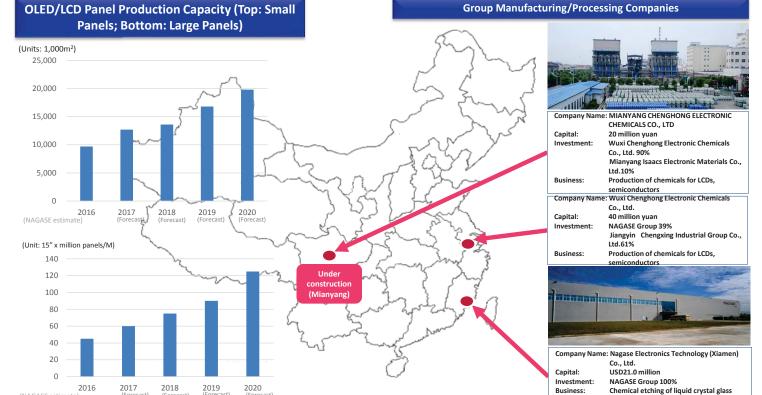
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## Action Plans for Achieving ACE-2020

- Focus Area: Displays -

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Group manufacturing/processing company business in China, where OLED and LCD panel production plants are expanding rapidly



panel units

## - Focus Area: Environment and Energy, Life & Healthcare -

■ Formulate sound business schemes and business models in the environmental field (VOC, soil, water treatment), contributing to a better society through a record of success in functional materials, equipment, and systems for Japanese manufacturers, as well as NAGASE Group products.

**★**January 1, 2016 Promulgation of the Air Pollution Control Act (Revised)

⇒ VOC became subject to regulations and monitoring

## Ex.) Shanghai City Local standards related to paint and ink manufacturers

	National	Shanghai City
Regulation Name	Integrated Emission Standard of Air Pollutants	Air Emission Standard for Manufacture of Paint, Ink, and Allied Products
Standard (Year Promulgated)	GB16297 (1996)	DB31/881 (2015)
Benzene	12	1
Toluene	40	10
Xylene (Unit: mg/m³)	70	20

 VOC Emissions
 Reduction and
 Monitoring System



2. Printing Ink
Solvent ⇒ Water-based

Online VOC
Measurement
Equipment



VOC recovery, liquefaction equipment



VOC concentration + regenerative combustor

Aqueous Printing In

Proposal of aqueous printing ink in preferential policies encouraging aqueous printing inks on soft packaging

Proposal of zero VOC emissions through the adoption of aqueous inkjet printing systems

Proposal of wastewater treatment facilities to treat wastewater from printer equipment cleaning

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# (Reference) Information by Segment

#### <Net Sales/Operating Income by Location>

(100 millions of yen)

		FYE	03/17		FYE 0	3/18	
		Interim	Year Actual	Interim	Vs. PY	Year Forecast	Vs. PY
	Domestic	714	1,468	785	110%	1,562	106%
Net sales	Overseas	211	451	275	130%	556	123%
Net s	Eliminations	- 185	- 384	- 213	-	- 417	_
	Total	741	1,535	847	114%	1,701	111%
a)	Domestic	15	33	19	130%	42	128%
g income	Overseas	4	9	7	189%	13	155%
Operating income	Eliminations	- 0	- 0	- 0	-	- 3	_
J	Total	18	41	26	143%	53	127%

<sup>\*</sup>Figures above are a combination of consolidated entities by location.

Inter-region eliminations not reflected; adjustments provided in the eliminations column. (Includes amortization of goodwill)

#### **FYE March 2018 Second Quarter Actual**

#### **Net sales**

#### ¥84.7 billion (114%)

- The Performance Chemicals Business recorded higher sales, mainly due to increased sales of coating raw materials and urethane materials associated with higher production of automobiles, as well as the impact of the acquisition of Fitz Chem Corporation (U.S. Specialty chemicals distributor) and the addition of the company to NAGASE consolidated results.
- The Speciality Chemicals Business recorded higher sales, mainly due to increased sales of fluorochemicals, electronics chemicals, and raw materials for industrial oil solutions for the semiconductor and other electronics industries.

#### Operating income

#### ¥2.6 billion (143%)

◆ Higher profits due to higher sales.

#### **FYE March 2018 Outlook**

♦ We project higher fiscal year revenues and profits, as coating raw materials and urethane materials sales perform well, while sales of fluorochemicals to semiconductor and other electronics industry segments perform similarly well.

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### **Advanced Materials & Processing Segment**

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#### <Net Sales/Operating Income by Location>

(100 millions of yen)

		FYE	03/17		FYE 03/18			
		Interim	Year Actual	Interim	Vs. PY	Year Forecast	Vs. PY	
	Domestic	755	1,534	813	108%	1,643	107%	
ales	Overseas	723	1,466	809	112%	1,615	110%	
Net sales	Eliminations	- 276	- 574	- 304	-	- 606	_	
	Total	1,202	2,426	1,318	110%	2,652	109%	
a)	Domestic	14	28	19	139%	38	136%	
g income	Overseas	12	22	16	138%	33	150%	
Operating income	Eliminations	+0	+0	- 0	-	- 0	_	
O	Total	26	50	35	135%	72	141%	

<sup>\*</sup>Figures above are a combination of consolidated entities by location.

Inter-region eliminations not reflected; adjustments provided in the eliminations column.

#### **FYE March 2018 Second Quarter Actual**

#### Net sales

#### ¥131.8 billion (110%)

- ◆ The Colors & Advanced Processing business recorded higher sales, driven by growth in plastic resins for industrial and packaging applications, dyes/additives, and digital print processing materials in Japan. Overseas, strong sales of print-related business products contributed to higher overall performance.
- Our business selling plastics to office equipment, appliance, and video game device markets recorded strong sales of new business-related products, as well as strong sales of resins to the office equipment/appliance and electronics markets in Japan. Overseas, the business recorded higher sales across all regions, owing in part to work with new suppliers.

#### Operating income

#### ¥3.5 billion (135%)

 Higher profits due to higher sales and improved profitability at manufacturing subsidiaries.

#### **FYE March 2018 Outlook**

We project higher sales and profits for the fiscal year. Sales of resin to office equipment/appliance and electronics markets and the electronics market are expected to continue to be strong in Japan during the second half, while business overseas is expected to grow through work with new suppliers.

#### <Net Sales/Operating Income by Location>

(100 millions of yen)

		FYE 03/17			FYE 03/18				
		Interim	Year Actual	Interim	Vs. PY	Year Forecast	Vs. PY		
	Domestic	638	1,297	650	102%	1,229	95%		
ales	Overseas	353	712	385	109%	716	101%		
Net sales	Eliminations	- 366	- 732	- 379	-	- 722	_		
	Total	625	1,277	657	105%	1,224	96%		
a)	Domestic	19	39	24	121%	48	122%		
g income	Overseas	11	23	19	165%	35	148%		
Operating income	Eliminations	+0	- 0	- 0	-	- 0	_		
3	Total	31	63	43	137%	82	129%		

<sup>\*</sup>Figures above are a combination of consolidated entities by location. Inter-region eliminations not reflected; adjustments provided in the eliminations column. (Includes amortization of goodwill)

#### **FYE March 2018 Second Quarter Actual**

#### **Net sales**

#### ¥65.7 billion (105%)

- ◆ The Electronic Chemicals Business recorded higher sales due to an increase of new business, as well as growth in photolithography material and equipment-related sales. The business also recorded strong performance of formulated epoxy resins for the electric and electronics industries.
- The Electronic Materials Business recorded lower sales, despite higher sales of display-related products, as sales of processed materials fell due to smartphone model changeovers.

#### **Operating income**

#### ¥4.3 billion (137%)

◆Higher profits due to higher sales.

#### **FYE March 2018 Outlook**

- ♦ We project lower sales for the fiscal year. During the second half of the year, sales of flexible display panel-related products are expected to increase, while photolithography material sales should increase in response to improved customer capacity utilization and new business. Glass thin processing business in China should continue to perform well. However, lower sales for certain electronic components and materials are expected to drive performance lower for the business as a whole.
- We project higher profits due to improved profits at our manufacturing businesses and improved product mix.

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### **Automotive & Energy Segment**

#### **ANAGASE**

#### <Net Sales/Operating Income by Location>

(100 millions of yen)

		FYE 03/17		FYE 03/18				
		Interim	Year Actual	Interim	Vs. PY	Year Forecast	Vs. PY	
Net sales	Domestic	264	584	316	120%	673	115%	
	Overseas	360	756	416	116%	849	112%	
	Eliminations	- 100	- 211	- 106	-	- 224	_	
	Total	524	1,129	627	120%	1,299	115%	
Operating income	Domestic	- 5	- 4	2	-	5	_	
	Overseas	9	20	12	126%	24	123%	
	Eliminations	+0	- 0	- 0	-	- 0	_	
U	Total	5	15	14	277%	30	195%	

<sup>\*</sup>Figures above are a combination of consolidated entities by location.

Inter-region eliminations not reflected; adjustments provided in the eliminations column.

#### **FYE March 2018 Second Quarter Actual**

#### Net sales

#### ¥62.7 billion (120%)

◆ The Automotive Solutions Business recorded higher revenues overall. Sales of engineering plastics were higher due to captured demand associated with the electrification/electronification of automobiles. Sales of car electronics-related products were likewise strong.

#### Operating income

#### ¥1.4 billion (277%)

 Higher profits due to higher sales and improved profitability at manufacturing subsidiaries.

#### **FYE March 2018 Outlook**

♦ We project higher sales and profits for the fiscal year, as automobile production is expected to continue to be strong throughout the second half of the year. Further, we expect to see strong sales of engineering plastics, owing to the addition of new business.

#### <Net Sales/Operating Income by Location>

(100 millions of yen)

		FYE (	FYE 03/17		FYE 03/18				
		Interim	Year Actual	Interim	Vs. PY	Year Forecast	Vs. PY		
Net sales	Domestic	497	1,018	497	100%	994	98%		
	Overseas	52	115	64	124%	112	97%		
	Eliminations	- 137	- 284	- 140	-	- 277	_		
	Total	412	849	421	102%	829	98%		
0	Domestic	33	62	36	109%	68	109%		
g income	Overseas	0	1	1	943%	2	209%		
Operating income	Eliminations	- 15	- 30	- 15	-	- 30	_		
0	Total	18	33	23	126%	40	120%		

<sup>\*</sup>Figures above are a combination of consolidated entities by location.

Inter-region eliminations not reflected; adjustments provided in the eliminations column. (Includes amortization of goodwill and technology-based assets)

#### **FYE March 2018 Second Quarter Earnings**

#### **Net sales**

#### ¥42.1 billion (102%)

- ◆ Sales of TREHA™ and other products to food ingredient makers in our Life & Healthcare Products Business were level, while sales in Europe and other regions overseas grew. Although the business recorded lower sales of AA2G™ to major customers in the skin care and toiletries field overseas, sales to major customers in Japan were higher. In the medical and pharmaceutical field, sales of pharmaceutical raw materials and intermediates and medical materials were level with the year-ago period, while sales of pharmaceutical business products were lower, resulting in slightly higher sales for the Life & Healthcare Products Business.
- ◆ The Beauty Care Products business recorded lower sales, driven down due to weak performance across all product categories.

#### **Operating income**

¥2.3 billion (126%)

◆Higher profits due to higher sales.

#### **FYE March 2018 Outlook**

- ♦ We project lower sales for the fiscal year. Sales of TREHA™ should be level with the first half of the year, and sales of Fibryxa™, Hayashibara Hesperidin S, and other products using high-function materials should be higher. However, declining sales of pharmaceutical raw materials and intermediates to the medical and pharmaceutical field should drive overall performance lower.
- ♦ We project higher profits due to improved product mix and other factors.

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These presentation materials contain forward-looking projections based on assumptions, forecasts, and plans as of November 28, 2017. Actual earnings may differ from projections due to risks and uncertainties in the future global economy, competitive landscape, currency exchange rates, etc.